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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/701,947

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Ross W. Callon

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EXAMINER

ABELSON, RONALD B

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/701,947	Applicant(s) CALLON ET AL.	
	Examiner RONALD ABELSON	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

Ron Abelson
Primary Examiner

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/14/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 38, 40 - 50, and 52 - 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Renwick (US 7,151,775) in view of Comstock (US 6,452,920).

Regarding claims 38 and 50, Renwick teaches:

(a) at a first node in a virtual private network (VPN) / subnetwork (fig. 1 box 22, fig. 3 box Router A, col. 6 lines 32-35) ,using a first header portion of a data packet, the first header portion indicating the first node as a source node and a second node in the VPN as a destination node, generating a value associated with the source and destination nodes (fig.3 Router A, router A assigns incoming traffic to one of LSPs using IP header, hash operation include performing division on IP source and destination addresses, col. 8 lines 32 - 58). Note, the

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examiner corresponds the VPN of the applicant with the subnetwork of the reference.

(b) creating a second header portion for the data packet including the value associated with the source and destination nodes (inner label value implicitly carries the IP address hash information calculated at original ingress, col. 9 lines 46-55);

(c) using the second header portion, selecting one of a plurality of possible paths on a the network connected to the VPN for forwarding the packet (fig.3 Router A, router A assigns incoming traffic to one of LSPs using IP header, hash operation include performing division on IP source and destination addresses, col. 8 lines 32 - 58, inner label value implicitly carries the IP address hash information calculated at original ingress, col., 9 lines 46-55).

Although Renwick teaches using the second header portion, selecting one of a plurality of possible paths on a the network connected to the VPN for forwarding the packet, the reference is silent on one of a plurality of possible paths is on a **second network**. However, Renwick does teach tunneling (col. 9 lines 46-55).

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Comstock teaches tunneling between networks (col. 2 lines 35-37).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Renwick by tunneling the hash value between two networks, as suggested by Comstock. This modification would benefit the system by alleviating the router of the responsibility of making the routing decision since the decision was made upstream.

Although the combination teaches the first node, router "A", as the source node of the subnetwork (Renwick: fig. 3), the combination is silent on the first node is the source node. However, this figure is only an illustrative example. If router "A" were the source of the packet, it would have been obvious to one of ordinary skill in the art, to include in the header of the packet the IP address for router "A" as the source IP address. This modification would benefit the system by informing the destination node where the packet originated.

Regarding claims 40 and 52, the first header portion is one or the other of an Ethernet header portion or an Internet Protocol (IP) header portion, and the second header portion is

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one or the other of an Ethernet header portion or an Internet Protocol (IP) header portion (Renwick: IP source and destination addresses, col. 8 lines 44-47).

Regarding claims 41 and 53, the value is derived by performing a hash operation on the first header portion (Renwick: hash operation, IP source and destination addresses, col. 8 lines 44-47).

Regarding claims 42 and 54, the hash operation is performed on information in the first header portion related to addresses of the source and destination nodes (Renwick: hash operation, IP source and destination addresses, col. 8 lines 44-47).

Regarding claims 43 and 55, the hash operation is performed on a protocol field in the first header portion (Renwick: col. 6 lines 53 - 59).

Regarding claims 44 and 56, the hash operation is performed on the source and destination addresses of the source and

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destination nodes, respectively (Renwick: hash operation, IP source and destination addresses, col. 8 lines 44-47).

Regarding claims 45 and 57, the hash operation comprises performing a division on the first header portion (Renwick: col. 8 lines 44-47).

Regarding claims 46 and 58, the value is related to a remainder generated by the division (Renwick: col. 8 lines 44 - 47).

Regarding claims 47 and 59, the hash operation comprises a cyclic redundancy check (Renwick: col. 8 lines 47 -48).

Regarding claims 48 and 60, the hash operation comprises a checksum operation (Renwick: col. 8 lines 47 -48).

Regarding claims 49 and 61, the selecting step comprises performing a hash operation on the second header portion (Renwick: col. 8 lines 44 -47).

3. Claims 39 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Renwick and Comstock

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as applied to claims 38 and 50 above, and further in view of Paulsen (US 6,055,575).

Although the combination teaches VPN and Internet (Renwick: col. 1 line 7, col. 2 lines 52-54), the combination is silent on the second network is the Internet.

Paulsen teaches a VPN connected to an Internet network (fig. 1, col. 4 lines 22-26).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by implementing the subnetwork Renwick: fig. 3 box 122 as a VPN and the second network as the Internet, as shown by Paulsen. This modification would benefit the system since both the VPN and Internet are ubiquitous in today's computing environment.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RONALD ABELSON whose telephone number is (571)272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7439. The fax phone number for the

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organization where this application or proceeding is assigned is
571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ronald Abelson
Primary Examiner
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